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(54) **WATER BASE INK COMPOSITION,  
METHOD OF INK JET RECORDING  
THEREWITH AND RECORD**

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(57) **ABSTRACT**

An aqueous ink composition having high storage stability is provided. The aqueous ink composition of the invention contains a coloring agent, a "dispersing resin containing a repeating unit structure (I) having an unneutralized group and a repeating unit structure (II) having a neutralized group and capable of being hydrated and/or dissolved in water", a water-soluble organic solvent capable of swelling and/or dissolving the foregoing repeating unit structure (I), and water.

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(54) **WATER-BASED PIGMENT INK  
COMPOSITION**

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(57) **ABSTRACT**

Disclosed is a water-based pigment ink composition comprising, as colorants, (1) a surface treated pigment having a water-dispersibility imparting group introduced to the surface thereof and (2) a water-dispersible polymer-encapsulated pigment which is a pigment wholly coated with a polymer. The water-based ink composition exhibits good color developability and satisfactory abrasion resistance, causes little blurring, and has excellent storage stability.



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**Vanderhoff et al.**

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[54] **PRINTING INK COMPOSITIONS, METHODS  
FOR MAKING SAME AND USES THEREOF**

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[21] Appl. No.: **906,468**

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**Related U.S. Application Data**

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**106/20 B**

[58] Field of Search ..... **522/3, 84, 85,**  
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[57] **ABSTRACT**

Aqueous based printing ink compositions adapted for use in gravure and flexographic printing on hydrophobic substrates are prepared by combining a low-viscosity resin emulsion having an average particle diameter of less than about 0.5 microns and comprised of hydrophobic, moisture resistant, adherent resin forming components with a pigment paste containing a water-soluble polymer. The printing inks are substantially devoid of volatile organic solvent.

**16 Claims, No Drawings**